

NARRATIVE PROPOSAL
FY18 TARGETED AIRSHED GRANT
STATE OF UTAH
Department of Environmental Quality
Division of Air Quality
January 4, 2019

Included in the Proposal:

1. Standard Form 424 – Application for Federal Assistance
2. Standard Form 424A, Budget Information – Non-construction Programs
3. Standard Form 424B, Non-Construction Programs
4. Standard Form 6600-06, Certification Regarding Lobbying
5. EPA Form 4700-4, Pre-Award Compliance Review Report for All Applicants Requesting Federal Financial Assistance
6. EPA Form 5700-54, Key Contacts Form
7. Narrative Proposal

a. Summary Information

Project Title: FY18 Utah Targeted Airshed Grant Application #2 for Non-road Engines or Equipment Associated with Oil and Gas Production Uinta Basin, UT, Ozone Nonattainment Area

Applicant Information:

Name: Utah Department of Environmental Quality, Division of Air Quality

Address: 195 North 1950 West, Salt Lake City, Utah 84116

Contact Person: Sheila Vance **Phone:** (801) 536-4001

Email: svance@utah.gov **Fax:** (801) 536-0085

Amount requested of EPA: \$5,000,000

Total Project Cost: \$11,900,000

Amount of voluntary cost share from participants: \$6,900,000

Project Period: May 1, 2019 – May 1, 2024

Short Project Description: Utah will target 25 to 1350 plus horsepower non-road engines or equipment, engine model years 2008 or less that support energy production in the Uinta Basin. The program will provide incentives to replace older equipment and thus reduce emissions of ozone precursors NO_x and VOCs.

Place of Performance: The Uinta Basin ozone nonattainment area.

DUNS # 826001059

b. Project Summary/Approach

The Utah Department of Environmental Quality (UDEQ), Division of Air Quality (DAQ), a state entity with jurisdiction over air quality, is eligible to apply for assistance under this solicitation, in accordance with Section 302(b) of the Clean Air Act (CAA) and has responsibilities to attain and maintain National Ambient Air Quality Standards (NAAQS) for Ozone Uinta Basin nonattainment areas and has active air program grants under Sections 103 and 105 of the Clean Air Act (CAA) to carry out those responsibilities.

The Uinta Basin nonattainment area has complicated jurisdictional issues associated with air pollution regulation and authority. Emission sources are scattered over federal, state, and tribal lands. Each of these agencies has jurisdiction over these sources located on their respective lands and each has air regulations that apply depending on the amount of pollution emitted. Though emission sources may have slightly different requirements on different jurisdictional areas, the nonattainment area is one airshed that does not discriminate as to where emissions originate. This grant proposal is intended to apply to all emission sources within the nonattainment area regardless of air regulatory authority. As such the UDAQ intends to work and partner with the Ute Tribe to reach out to all potential applicants and eligible equipment.

The Basin lies in the northeast corner of Utah and is bounded on the north by the Uinta Mountains, on the south by the Tavaputs Plateau, on the west by the Wasatch Range, and on the east by elevated terrain that separates it from the Piceance Basin in Colorado. Duchesne and Uintah counties contain most of the Basin, and the Uintah and Ouray reservation covers a significant portion of basin lands. The Basin presents a very different ozone issue than the more typical summertime urban issue found along the Wasatch Front. The quality of air in the Basin is generally good, with the exception of certain episodic periods in the winter months where exceedances of the ozone standard are observed. These occurrences are associated with winter inversion periods with snow cover, light wind conditions, and strong temperature inversions. They are most common in February when the days are beginning to get longer and snow cover is still likely to be present, creating more ultraviolet rays to facilitate the photochemical reaction between NO_x and VOCs.

Based on the 2014 National Emissions Inventory (NEI), oil and gas emissions comprise 98% of the total VOC and 76% of the NO_x emissions inventory (with biogenics omitted) in Uintah and Duchesne counties (counties in the Uintah Basin). Conversely, engines related to oil and gas operations comprise approximately 59% of nonpoint NO_x emissions in the Uintah Basin (with biogenics omitted). As engines associated with oil and gas compromise a significant amount of the emission inventory for the Uinta Basin, this proposed grant will focus on upgrading older natural gas engines or equipment associated with oil and gas production to newer models that will run with less emissions and better fuel efficiency.

Nonroad stationary natural gas (spark ignition) engines and equipment model year 2008 or older are proposed to be replaced with engines that will meet the most recent new source performance standards (NSPS) required by subpart JJJJ. The inventory of engines within the Uinta Basin nonattainment area (UBNA) has a large number of older engines that are uncontrolled, i.e. model year 1998 or older. And for the newer engines, model year 1999 to 2008, if replaced with a current, certified engine there are required controls that would be a 50% reduction in allowed NO_x emissions and 30% reduction in VOC emissions. Engines contribute 76% of the NO_x and 3% of VOC emissions in the Uinta Basin nonattainment area. As NO_x VOCs are precursors to ozone formation, a reduction in both NO_x and VOC emissions from the older engines will provide a significant reduction in ozone.

The 2017 inventory of natural gas engines in the UBNA consists of approximately 2,700 engines that support oil and gas production. Of those, about 2,500 are natural gas powered engines. Of these, 1,660 are model year 2007 and older, the majority being natural gas pumping units that range from 25 horsepower to 100 horsepower. The largest engines are compressors with the horsepower range of 500 to 1,350, of which there are 28. To focus the grant on where the most impact can be made and also utilize the available inventory, this grant concentrates on these categories of engines.

The proposed grant to replace older natural gas engines within the UBNA provides an innovative strategy to address emission reductions from an emission source of ozone precursors that currently are not required to be addressed. The UDAQ has been concerned with such a large inventory of older model engines within the UBNA and has discussed the potential of rulemaking to require upgraded, newer engines with stakeholders. Feedback from oil and gas producers has focused on the economic impact of the cost as there are so many engines that would have to be replaced or retrofitted. The proposed grant would fund 40% of the cost of new subpart JJJJ compliant engine and would require that the replaced engine be destroyed. The larger compressor engines individually contribute large amounts of NO_x emissions to the UBNA and thus targeted in the proposed grant. To replace 175 natural gas pump engines within the 25 to 100 horsepower range and 15 natural gas compressors within the 500 to 1,350 horsepower range the area would see about a reduction of 381,070 short tons a year of NO_x.

As the UBNA has been designated as a marginal nonattainment area there is no requirement for development of a SIP; however, there is a very short time period for the area to achieve the ozone NAAQS. With only three years from August 3, 2018 to reduce the ozone values in the UBNA and not very many mandatory regulatory requirements, UDAQ is looking for incentives for the oil and gas producers to voluntarily take action to reduce emissions of VOCs and NO_x. Engines are the largest contributors to the NO_x emissions and are very costly. In discussing potential grant options with the Western Energy Alliance

group, which represents a significant portion of the oil and gas producers in the UBNA, the replacement of engines was identified by them as a program that they would support due to the large costs of replacement. As these are natural gas engines, this is also a unique opportunity as they are not eligible for the more common clean diesel grants that more often available to nonattainment areas.

This proposal supports Section 6a of EPA Order 5700.7, which makes progress towards EPA's 2014-2018 Strategic Plan, “Addressing Climate Change and Improving Air Quality;” Objective 1.2: “Improve Air Quality,” which states, “Achieve and maintain health- and welfare-based air pollution standards and reduce risk from toxic air pollutants and indoor air contaminants. The proposed activities will reduce emissions from engines that support oil and gas operations in an area that is ranked in the top five most polluted areas relative to ozone standards. By replacing the natural gas pump engines and compressors represented in this proposal, the NO_x emissions levels will be reduced and as such so will ozone creation.

c. Community Benefits, Engagement and Partnerships

Community Benefits

The proposed program will target communities located within the Uinta Basin ozone nonattainment area (black outline below). The nonattainment area follows the 6,250 ft. elevation boundary at which a typical winter inversion boundary occurs. The elevation profile below shows that the Uinta Basin is indeed a basin, prone to trapping ozone in the concentrated areas where communities are located.

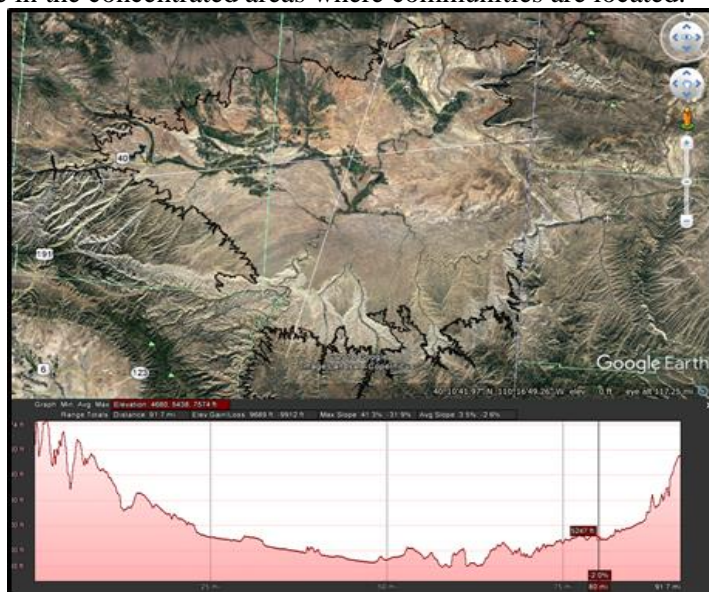


Figure 1: Elevation profile of an east-west cross section of the Uinta Basin. Ozone Nonattainment area is outlined in black (6,250 ft. above sea level). Source: Google Earth 2018

For simplicity of data analysis, this uniquely-shaped nonattainment area has been approximated using census block groups which intersect and are contained by the 6,250 foot elevation boundary that defines the official nonattainment area.

The total population of census block groups intersecting the ozone nonattainment area was 52,878 people in 2010. Duchesne, Roosevelt, and Vernal municipalities represent the largest population concentrations in the basin. Still, the Uinta Basin is a largely rural area, with many of the census block groups housing a small population relative to other block groups in Utah.

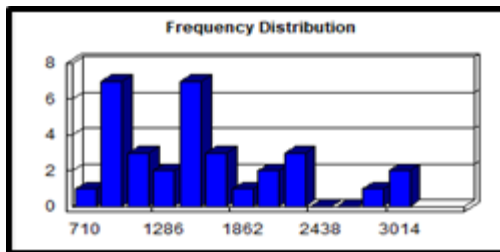


Figure 3: Frequency distribution of population in nonattainment area census block groups indicates that this is a highly rural area.

The percentage of low income households in the Uinta Basin ranges from 5% to 60%. Areas surrounding the Roosevelt, Myton, and Duchesne municipalities and the entire southern half of Uintah County have low income populations ranging from 40-50%.

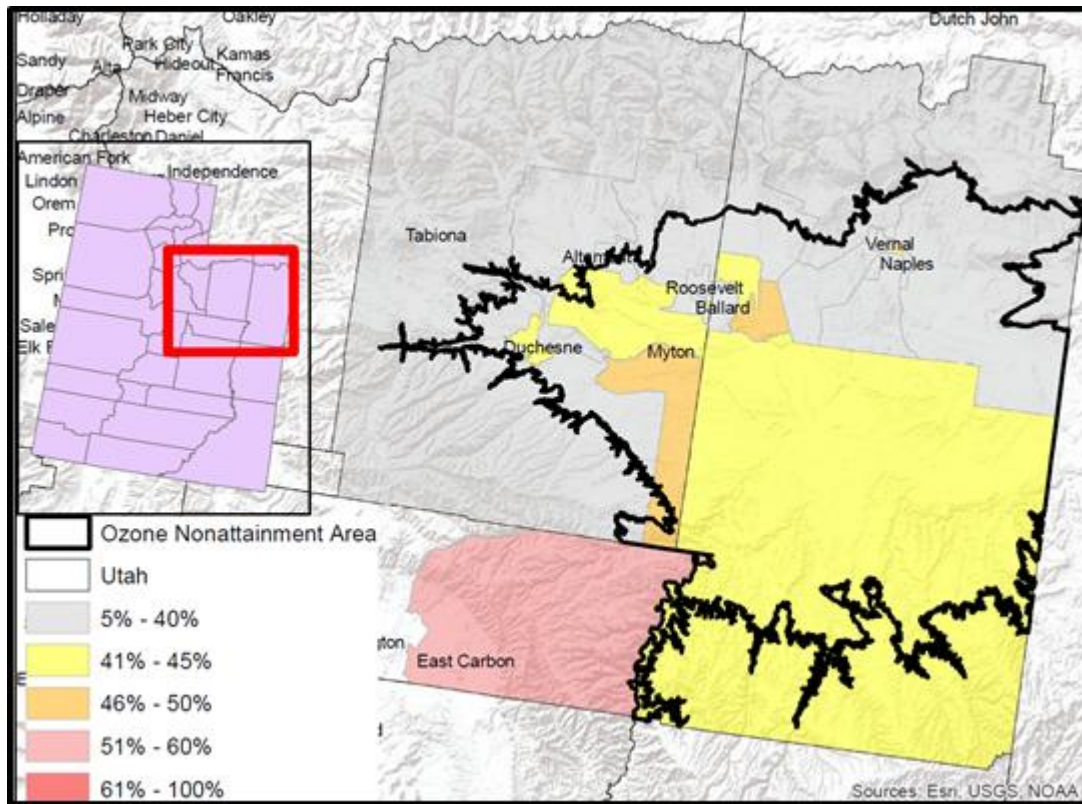


Figure 4: Percent of population with annual income below the federal poverty level. Data retrieved from US EPA environmental justice mapping and screening tool.

The Uinta Basin is home to the Uintah and Ouray reservation of the Northern Ute Tribe. In 2014, the Tribe had 2,970 members living in the area, with more than half living on the reservation. Many areas in the Uinta Basin have a minority population greater than 50% below the federal poverty level, particularly in areas that overlap the reservation and Fort Duchesne to the east of Roosevelt.

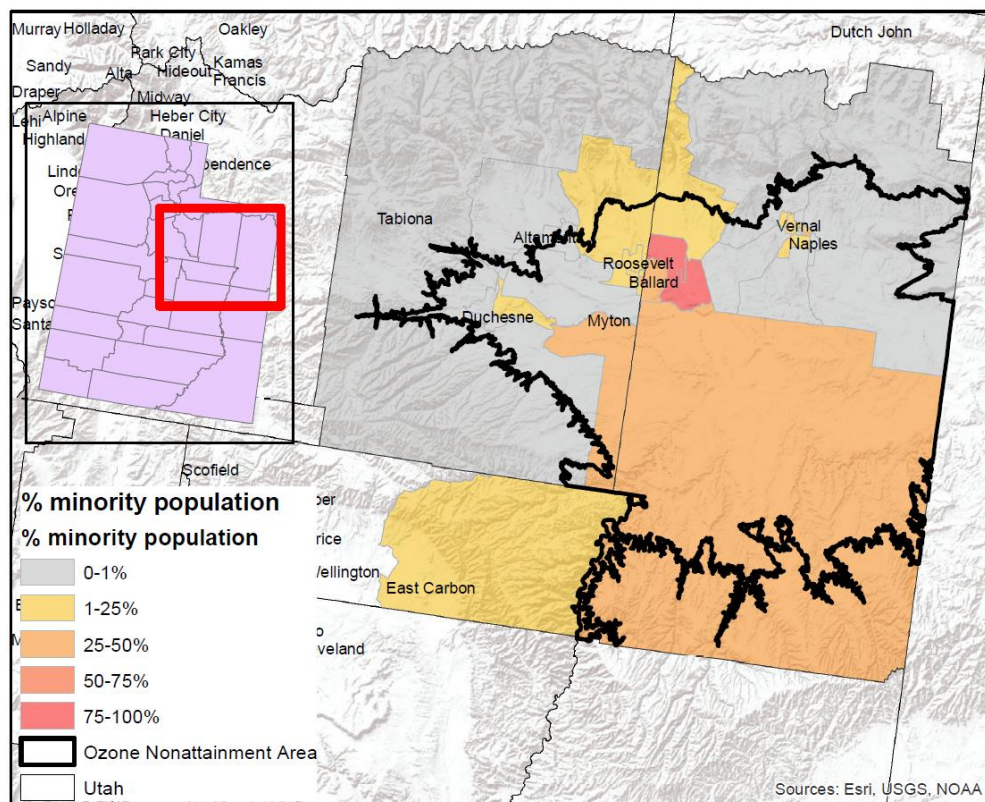


Figure 5: Percent minority population. Data from US EPA environmental justice mapping and screening tool.

Those Uinta Basin community members in the minority and low income brackets are disproportionately affected by high ozone concentrations across the wider Uinta Basin, particularly in the south, southeast, and west portions of the nonattainment area.

A majority of ozone precursors originate from oil and gas activity in the basin. There are a large number of active oil or gas wells located in the south, southeast, and west portions of the nonattainment area. These well sites are often co-located with minority and low income census blocks in the area.

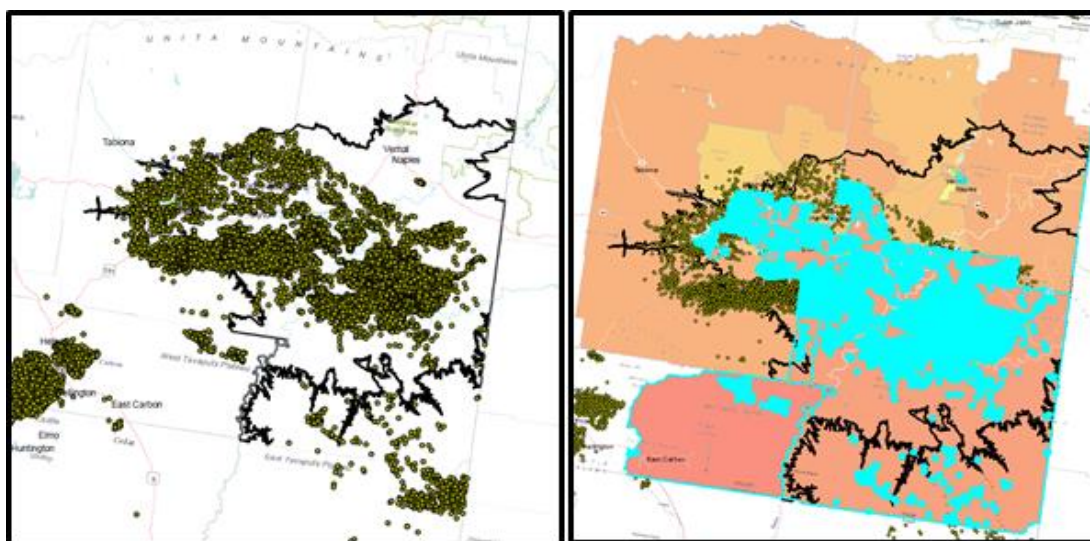


Figure 6: (left) Currently producing or shut-in Oil & gas well locations 13,931 oil or gas wells are in the Utah as on Dec. 13 2018. (right) 8,932 of those wells are located in areas where more than 40% of the population is considered low income (annual income less than 2 times the national poverty rate), highlighted in teal. Source: Utah Division of Oil, Gas, and Mining <https://oilgas.ogm.utah.gov/oilgasweb/>

The Utah Division of Air Quality and other local research institutions collaborated from 2011-2014 to investigate the Uinta Basin's unique wintertime high ozone concentration periods. Ouray, located in the heart of the ozone nonattainment area, consistently exceeds EPA's 75 ppb ozone concentration standard, occasionally by as much as 90%. These studies revealed that large concentrations of VOC and NO_x trapped within a wintertime temperature inversion lead to hazardous ozone concentrations.

The Uinta Basin's ozone concentration scores hover around the 50th percentile, demonstrating the widespread severity of harmful high ozone concentrations in this area.

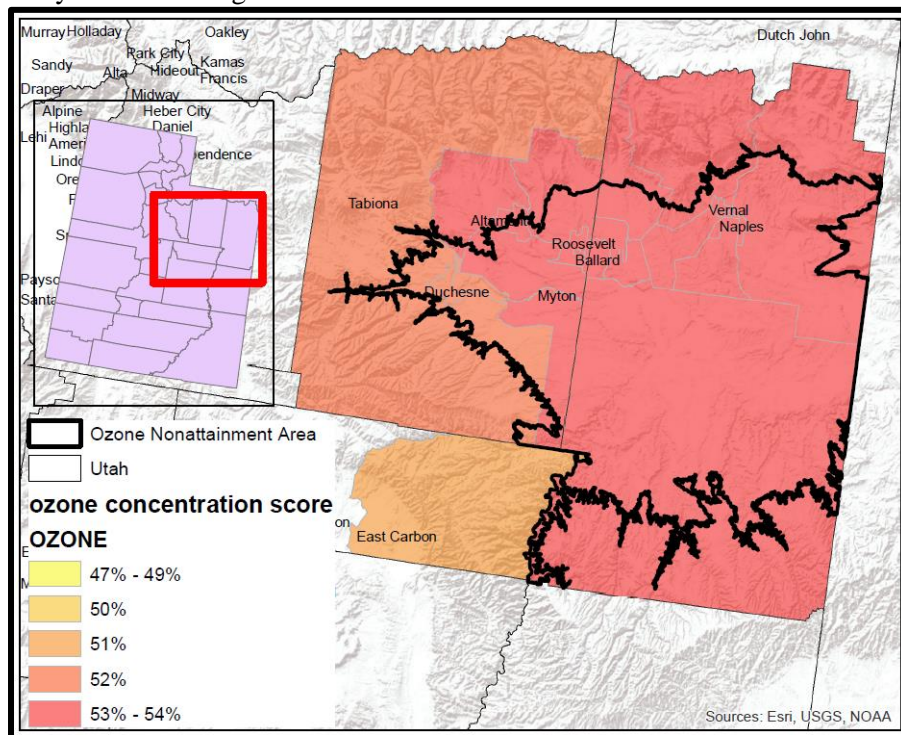


Figure 1: Ozone concentration percentiles. Source: Environmental Protection Agency, 2017. EJSCREEN.

The proposed program will help reduce the health burden and levels of ozone and its precursors. Natural gas engines typically found on producing oil and gas well pads generate NO_x, a precursor essential to ozone formation. The program will also increase public awareness of oil and gas related air pollution in the underserved communities in the Uinta Basin, in addition to replacing older natural gas engines with newer, less NO_x-emitting engines. Through community outreach and advertisement of the proposed grant opportunities there will be an opportunity to educate and inform the public on the contributions of oil and gas to the emissions inventory and the effect on air quality.

Community Engagement and Partnerships

The UDAQ has established many working relationships with stakeholders in the UBNA through air quality research collaboration, participation in the EPA's ozone advance program, various oil and gas rulemaking efforts, attendance at local workshops and conferences. UDAQ is very proud of these relationships and looks forward to executing the proposed grant to continue to grow these relationships and establish new ones. Some of the partners that UDAQ works closely with are as follows:

- Ute Tribe Air Quality Program
- Tri County Health
- Utah State University Bingham Research Center
- Western Energy Alliance
- Bureau of Land Management
- Uintah and Duchesne County Commissioners

- Division of Oil, Gas and Mining
- EPA Region 8

d. Project Sustainability

As discussed above, the UDAQ has spent many years establishing relationships with a broad spectrum of stakeholders in the UBNA with the sole purpose of improving air quality by reduction of winter time ozone formation. This has included intense scientific study, coordination of voluntary seasonal ozone controls with oil and gas producers, combined efforts for a robust oil and gas air emission inventory, streamlined permitting, and education and outreach. This work has provided greater understanding of how wintertime ozone is formed and potentially controlled. Unfortunately, this work did not prevent the area from being designated as a marginal ozone nonattainment area on August 3, 2018. But it does put the UBNA in a great position to continue sustainable research and rulemaking as all these relationships are strong and well established.

With the marginal classification, the time frame to achieve attainment is only three years; therefore, all stakeholders are motivated to take action to prevent reclassification to a moderate nonattainment area and have the mandatory actions be implemented as required by the CAA. It is in everyone's interest to take quick and effective actions to reduce the emission of ozone precursors and improve the air quality through self-driven, voluntary action.

Improving air quality in the UBNA is a priority for the State of Utah. In 2018, for the first time, the Utah legislature provided UDAQ with long term, ongoing funding for air quality research in the amount of \$500,000 a year. Previously, the legislature provided research funding only sporadically as annually lapsing funding, the quantity of which always differed. The ongoing funding has created confidence and certainty in the research community and will lead to more effective research. With this ongoing funding, UDAQ now has the ability to target research that will lead to greater understanding on how wintertime ozone is formed in the area, understand and improve the area's emission inventory and thus better input into photochemical modeling, and help identify the most effective controls. This research will continue and is not contingent on EPA funding.

A Uinta Basin Ozone Working Group has recently been established that is focused on sharing knowledge and ideas for how to improve the air quality of the UBNA. The group is made up of local government representatives, federal agencies, state agencies, tribal agencies, oil and gas producers, academic experts, and environmental advocates. There is no budget or funding for this group, but is made up of representatives that are focused on collaboration, sharing of knowledge and expertise to help understand and reduce ozone values in the UBNA.

The UDAQ has long had a minor source permitting program, of which the majority of the oil and gas sources fall under. In fact, 98% of the total VOC emissions and 76% of the NO_x emissions are from oil and gas production. As such, these sources will continue to be evaluated and addressed independent of EPA funding. A series of oil and gas rules has been developed since 2013 and will continue to be evaluated and refined. Through the permitting and research work UDAQ has established a strong working and collaborative working relationship with the oil and gas producers in the Uinta Basin. As the proposed grant is focused on oil and gas producers and replacing older, dirtier engines they own with newer cleaner ones, this relationship should help ensure the success of the program.

e. Environmental Results - Outcomes, Outputs and Performance Measures

i. Expected Project Outputs and Outcomes

This proposal supports Section 6a of EPA Order 5700.7, which makes progress towards EPA's 2018-2022 Strategic Plan. The proposed activities will reduce emissions from non-road oil and gas engines in environmental justice areas that are ranked in the top 5 most polluted areas relative to the 2015 8-hour

ozone standard. By replacing non-road oil and gas engines presented in this proposal, the ozone precursor emissions will be reduced in the nonattainment area. The outcomes in the following table were quantified using the EPA's Diesel Emissions Quantifier.

Activities:	Outputs:	Outcomes							
		(Assumptions and calculations are based on default values from the EPA's Diesel Emissions Quantifier)							
		Intermediate Outcomes				End Outcomes			
		Cost/Ton of Pollution Reduced	NOx (short tons) Reductions	PM2.5 (short tons) Reductions	HC (short tons) Reductions	CO (short tons) Reductions	\$ Value of Annual Health Benefits Achieved From PM 2.5 Reductions	Anticipated Life of Project (Years)	Contributions Toward Compliance with SIP (in Tons Per Day) Compared to RFP Increments Calculated In Each SIP
Replace 175 small 40hp natural gas powered O&G pumps	175 small pumps with weighted average engine model year of 1973 (uncontrolled) permanently disabled and replaced with natural gas engines that meet the most stringent emissions standards.	NOx = \$30,762 PM 2.5 = \$63,389 HC = \$69,923 CO = \$16,389	Annual = 7.585 Lifetime = 227.55	Annual = 3.681 Lifetime = 110.43	Annual = 3.337 Lifetime = 100.11	Annual = 14.237 Lifetime = 427.11	\$170,000	Remaining Life of Existing Engines = 10 years Total Life of New Engines = 5 years	Totals for Uinta Basin Emission: Tons Per Winter Day: NOx: 1.059 PM: 0.197 VOC (HC): 0.059 Sum of All: 1.316
Replace 15 large 1,000hp natural gas powered O&G gas compressors	15 large gas compressors pumps with weighted average engine model year of 2002 (tier 1) permanently disabled and replaced with natural gas compressors that meet the most stringent emissions standards.	NOx = \$2,410 PM 2.5 = \$13,166 HC = \$49,331 CO = \$8,779	Annual = 373.485 Lifetime = 1,867.425	Annual = 68.357 Lifetime = 341.785	Annual = 18.244 Lifetime = 91.22	Annual = 102.519 Lifetime = 512.595	\$3,200,000	Remaining Life of Existing Engines = 10 years Total Life of New Engines = 5 years	
Totals		NOx = \$33,172 PM 2.5 = \$76,555 HC = \$119,254 CO = \$25,168	Annual = 381.07 Lifetime = 2,094.975	Annual = 72.038 Lifetime = 452.215	Annual = 21.581 Lifetime = 191.33	Annual = 116.756 Lifetime = 939.705	\$3,370,000		

ii. Performance Measures

UDAQ has assigned a project manager to coordinate, monitor, and oversee the development of the proposed activities to ensure successful use of grant funds and to promote its objectives and outcomes throughout the project period. The project manager will ensure the proposed emissions reductions occur by implementing the following performance measures and using the disbursement of grant funds as leverage:

- Evidence that the replacement activity is an “early replacement” and would not have occurred through normal attrition or without the financial assistance provided through this award. The participating producers will be required through contractual obligations to provide verification that the replaced engines are operational with a minimum of three years remaining in their useful life. Verification may include inventory characterization showing inventory age ranges and average turnover rates based on the producer’s budget plan or inventory retirement schedule. An initial review of the producer’s current inventory, budget, and inventory retirement policies will be conducted prior to award. These requirements will ensure that funds are not being used to supplement activities that would already occur; rather, provide an incentive for engines to retire sooner than scheduled.
- Evidence that the procurement of the engines results in a competitive process with an evaluation of multiple bids from eligible vendors that detail the new engine’s specifications to ensure engines with the most stringent emissions standards are included at the lowest cost available and to assess the new engine’s certification values for PM, NO_x, CO, and HC to compare with the values of the replaced engine. The new engine specifications will also help to verify that the new engines are similar in size and horsepower, and used for the same purpose as the replacement engine(s).
- Evidence that the replaced engine has been permanently disabled. Through contractual agreement, producers will be required to provide photographs or video of the scrapped engine(s).
- Documentation for quarterly and final reporting. UDEQ will assess progress quarterly to verify that the grant activities and objectives are being met in a timely manner and to report the program status to EPA. The reporting will include verification that the activities are taking place as detailed in the original timeline, that funds are being drawn down at an appropriate rate and level, that the engines being affected by the activity are representative of those in the original proposal, and any obstacles that may have occurred along the way and how they were remedied. Although the old and new engine’s certification values will provide a general comparison of pollution levels, a more detailed calculation, including annual hours used,

and annual fuel used will take place at the end of the project period that will provide actual emissions reductions for the engines involved. These calculations will occur for the final report using the EPA Diesel Emissions Quantifier.

- Air quality improvements resulting from these projects may be quantified and credited toward attainment in the nonattainment area.

iii. Performance Plan

Measurable short-term:

- Number of grant agreements/contracts signed by participating producers
- Number of engines evaluated and approved by UDAQ for participation
- Number of new engines purchases
- Number of engines scrapped
- Amount of reimbursements made to producers

Short-term results will be measured using a form to track progress on program deliverables. The deliverables include the number of engines, executed grant contracts, participant submittal of engine information, UDAQ approval of engine eligibility, submittal of bids for new engine purchases, UDAQ approval of bids, submittal of scrappage documentation, UDAQ approval of scrappage documentation, submittal of new engine purchase documents (invoices, proof of payment to verify cost-share commitment was met. Using the Google Drive process managed through one email account, staff is able to more efficiently and effectively track communications and data in one place.

Measurable long-term:

- Lifetime emissions reductions based on new engine model standards: new engines have improved fuel economy that translate to added environmental benefits through reduced CO₂ emissions, measured by number of engines scrapped and new engines purchases.
- Reports generated, website hits, press releases, and social media activity: widespread dissemination of program's environmental achievements, measured by the number of reports generated for large audiences and resulting inquiries, number of news stories generated by press releases, and the amount of activity on social media.
- Number of future engine replacement projects: partnerships developed to carry out the environmental activities will result in an indirect dissemination of information about the success of the Program, encouraging broader participation, measured by the number of future engine replacement projects.
- Quarterly and final reporting to EPA will provide an account for measurable performance of the projects to ensure the environmental objectives are being met within the appropriate timeline and budget. This will document any setbacks that may occur. The final report will measure environmental achievements, cost, and any barriers that may have taken place throughout the grant period and provide a comparison of anticipated outputs and outcomes to actual achievements.

iv. Time Schedule and Tasks

- June 2019: Announce Non-Road Oil and Gas Engine Replacement Program on UDEQ website, social media outlets, and through press releases.
- July 2019: Contracts, Memorandum of Understanding, or similar agreement developed for UDEQ, producers, and engine distributors.
- Every June of 2019-2023 and January of 2020-2024: UDEQ solicits producers through press releases, social media, and other outreach activities to apply for incentives to replace non-road oil and gas engines.
- Every August of 2019-2023 and March of 2020-2024: UDEQ evaluates submitted engine lists from producers to determine eligibility and identify approximately 40 (per timeframe) engines to participate in the program.
- Every September of 2019-2023 and April of 2020-2024: Develop award letters, contracts and scope of work to be signed by participating producers that outline the terms and conditions of the grant, procurement of the new engines, and destruction of the old engines.

- Every October, 2019-2024: Quarterly reports submitted to EPA.
- Every October-November of 2019-2023 and May-June of 2020-2024: Participating producers to obtain and submit for approval to UDEQ multiple bids for approximately 190 (combined total) new non-road oil and gas engines.
- Every October-November of 2019-2023 and May-June of 2020-2024: Upon UDEQ approval, participating fleet owners to place orders for approximately 190 (combined total) new non-road oil and gas engines.
- Every January, 2020-2024: Quarterly reports submitted to EPA.
- Every January-February of 2020-2024 and August-September of 2020-2024: Remove from service and disable approximately 190 (combined total) old non-road oil and gas engines from participating producers and place into service approximately 190 new non-road oil and gas engines that meet the most stringent emissions standards.
- Every March-April of 2020-2024 and October-November of 2020-2024: Participating producers and engine distributors submit required documentation to UDEQ for approval and disbursement of grant funds.
- Every April of 2020- 2024: Quarterly reports submitted to EPA.
- Every July of 2020-2024: Quarterly reports submitted to EPA.
- September of 2024: Final report to EPA.

f. Programmatic Capability and Past Performance.

i. Management, Completion and Reporting Requirements

EPA Cooperative Agreements with UDEQ	Award Amount	UDEQ Report Submission Date	Report included progress towards outputs and outcomes? If no progress, how was the reason documented?
FY14 National Clean Diesel Funding Assistance Program- DE-96831401: Qtr. 1	\$500,000	2/2/2015	Yes
FY14 National Clean Diesel Funding Assistance Program- DE-96831401: Qtr. 2		5/8/2015	Yes
FY14 National Clean Diesel Funding Assistance Program- DE-96831401: Qtr. 3		8/3/2015	Yes
FY14 National Clean Diesel Funding Assistance Program- DE-96831401: Qtr. 4		11/3/2015	Yes
FY14 National Clean Diesel Funding Assistance Program- DE-96831401: Final Report		11/7/2016 (completed one year early)	On 4/21/16, report was accepted with congratulatory remarks from EPA on a project successfully completed
FY15 National Clean Diesel Funding Assistance Program- DE-96831601: Qtr. 1	\$500,000	2/4/2016	Yes
FY15 National Clean Diesel Funding Assistance Program- DE-96831601: Qtr. 2		5/3/2016	Yes
FY15 National Clean Diesel Funding Assistance Program- DE-96831601: Qtr. 3		8/1/2016	Yes
FY15 National Clean Diesel Funding Assistance Program- DE-96831601: Qtr. 4		11/3/2016	Yes
FY15 National Clean Diesel Funding Assistance Program- DE-96831601: Qtr. 5		2/7/2017	Yes
FY15 National Clean Diesel Funding Assistance Program- DE-96831601: Qtr. 6		5/1/2017	Yes
FY15 National Clean Diesel Funding Assistance Program- DE-96831601: Qtr. 7		7/31/2017	Yes
FY15 National Clean Diesel Funding Assistance Program- DE-96831601: Qtr. 8		TBD	TBD
FY16 National Clean Diesel Funding Assistance Program- DE-96850301: Qtr. 1	\$1,009,814	2/7/2017	Yes
FY16 National Clean Diesel Funding Assistance Program- DE-96850301: Qtr. 2		5/1/2017	Yes
FY16 National Clean Diesel Funding Assistance Program- DE-96850301: Qtr. 3		7/31/2017	Yes
FY16 National Clean Diesel Funding Assistance Program- DE-96850301: Qtr. 4		TBD	TBD
FY16 National Clean Diesel Funding Assistance Program- DE-96850301: Qtr. 5		TBD	TBD
FY16 National Clean Diesel Funding Assistance Program- DE-96850301: Qtr. 6		TBD	TBD
FY16 National Clean Diesel Funding Assistance Program- DE-96850301: Qtr. 7		TBD	TBD
FY16 National Clean Diesel Funding Assistance Program- DE-96850301: Qtr. 8		TBD	TBD
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 1	\$2,477,250	2/7/2017	Yes
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 2		5/1/2017	Yes
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 3		7/19/2017	Yes
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 4		TBD	TBD
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 5		TBD	TBD
FY16 Targeted Air Shed Grant Program- EM-96838701-0: Qtr. 1	\$2,477,250	7/31/2017	Yes
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 2		TBD	TBD
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 3		TBD	TBD
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 4		TBD	TBD
FY16 Targeted Air Shed Grant Program- EM-96838601-0: Qtr. 5		TBD	TBD

ii. Organizational Experience and Plan

UDEQ has been the recipient of and successfully administered 19 Clean Diesel awards and two Targeted Air Shed Grant awards worth a combined total of over \$19 million.

UDAQ has been the recipient of nineteen clean diesel awards from EPA over the last nine years and has successfully completed 15 of the agreements by meeting reporting deadlines, completing the projects by the completion due dates, and providing details of the projects in the final technical reports. Three of the agreements required extensions in order to accommodate the contractual changes that took place with one of the vendors as a result of the Safety Notice for the Donaldson Multi-Stage Filter. An extension on a current grant was necessary due to an amendment for decreased funding. All four extensions were approved by EPA Project Officers. Two current grant agreements are underway and coming along on schedule.

UDAQ employs two full-time employees to ensure project goals, timelines, and reporting requirements are met. UDAQ closely follows agreements with EPA and fulfills requirements by verifying strategies through an internal administrative review process. UDAQ administers project implementation by actively being involved in the review and approval of identified fleets, the purchase and use of verified technologies, contractor selection, and scope of projects. The grant awards to UDAQ have been successfully managed as a result.

iii. Staff Expertise

UDAQ has a staff with a vast amount of experience and a great deal of success working on air quality improvements in the Uinta Basin and administering on-road heavy-duty diesel replacement programs.

As the UDAQ's Uinta Basin Coordinator, Sheila Vance will act as the project manager for this program. Sheila has been managing the air quality issues in the Uinta Basin for the past three and half years. Through her work on oil and gas rules and drafting the governor's recommendation for 2015 ozone nonattainment area, she has significant knowledge of the issues facing the area. Sheila has worked hard to establish good working relationships with the stakeholder in the area, from the oil and producers, local government representatives, Ute Tribe air quality staff, EPA staff and many other interested parties. Sheila has a Bachelor's of Science Degree from the University of California, Davis and has over 25 years of environmental compliance and regulatory work in both the private sector and government. Sheila's past work performance has involved management of a multi-million dollar budget at a highly regulated US Army hazardous waste incinerator with multiple contracts to ensure completion of highly visible chemical weapons treaty requirements. Her organizational skills are such that she can ensure compliance with contract terms and policies and procedures of various programs and to oversee budgetary responsibilities of multiple projects.

Lisa Burr has been overseeing the Utah Clean Diesel Program; the Clean Air Retrofit, Replacement, and Off-Road Technology (CARROT) Program; the Utah Clean Fuels Grant Program; and the Volkswagen Settlement for the past nine years and will continue to serve in the capacity of Project Manager for future clean diesel projects. Lisa has an Associate of Applied Science Degree in Business Systems Technologies and Bachelor of Science Degree in Technical Sales, 7 years previous experience as a Program Coordinator in the automotive industry, and has spent the last nine years working at UDAQ in the Air Quality Policy Section as an Environmental Planning Consultant. Lisa has been working as a liaison between industry and government entities for 17 years. She is familiar with government contracts, procurement processes, automotive-related services, emission reduction technologies, and is able to dedicate the majority of her time towards overseeing the clean diesel projects that are awarded to Utah.

f. Budget

UDEQ will solicit applications bi-annually to ensure there is communication to the eligible engine owners on the replacement program as there is a high turnover of ownership in the oil and gas world. However, the program will be open throughout the five years of the period of performance for the grant in order to provide ample opportunity to receive potential projects for evaluation. Partnering with the oil and gas producers and other partners in the area (the Ute Tribe, BLM, USU, Tri-County Health) will generate a high level of interest from engine owners. The goal is to use the funds expeditiously so as to achieve emissions reductions as soon as possible.

The project manager will work with engine owners and engine dealerships to establish points-of-contact at each oil and gas company and dealership to provide an efficient means for collecting documentation and streamlining the procurement process. The point-of-contact and UDAQ will be in regular communication, including quarterly meetings to discuss outcomes in preparation for quarterly reporting to EPA.

Upon the selection of eligible participants, UDEQ will enter into contract through a grant agreement/contract with the engine owner and participating dealerships. The engine owner will be required to meet the State procurement laws by proving that a fair and competitive approach was taken to obtain the lowest possible cost. UDAQ will oversee the process to ensure appropriate procedures are used and occur within the required timeline.

UDEQ will enter into contract with the participating dealerships and engine owners to outline the grant requirements that will include appropriate procedures for the procurement of the new engines and appropriate destruction of the old engines as required by the anticipated assistance agreement between UDEQ and EPA to carry out the grant activities.

Payment of the grant funding to the dealers will be leveraged to ensure the proposed outputs and outcomes of the activities have been met. UDEQ will only disperse grant funds to the dealer upon receipt of documentation that shows a competitive procurement process was used; new engine specifications are similar in size, use, and horsepower as the engines being replaced; evidence that the replacement activity is an “early retirement” and would not have occurred through normal attrition; the engine owners’ cost-share commitment has been met through the engine purchases; and the old engines have been permanently destroyed. Also to be included in the contracts with the participants will be deadlines for completing projects and a warning of lost funding assistance if the deadlines aren’t met.

SECTION E. BUDGET FY18 TARGETED AIR SHED GRANT					
				EPA Funding	Cost-Share
Personnel (All Listed are 100% FTE)	Annual Salary		% Project Time Annually	For 5 Years	
Environmental Scientist	\$62,000		40%	\$124,000.00	
Environmental Planning Consultant	\$61,000		13%	\$38,125.00	
Administrative Services Manager	\$59,000		10%	\$29,500	
Air Quality Policy Section Manager	\$80,000		5%	\$20,000	
TOTAL PERSONNEL				\$211,625	
Fringe Benefits					
Calculated based on Personnel amount, and includes:					
Retirement, 401k, Social Security, Medicare, Workmans Comp,					
Unemployment Insurance, Long Term Disability, Termination Additive					
TOTAL FRINGE BENEFITS	calculated at:	58%		\$122,743	
Travel					
	Estimated Rate:		Qty:		
Hotel			0	\$0	
Daily Per Diem			0	\$0	
Mileage			-	\$0	
TOTAL TRAVEL				\$0	
Equipment	Cost/Unit		QTY		
				\$0	\$0

				\$0	\$0
TOTAL EQUIPMENT				\$0	\$0
Supplies					
TOTAL SUPPLIES					
Contractual					
	Labor rate (\$/hour):		Duration (hours per unit):		
				\$0	\$0
				\$0	\$0
TOTAL CONTRACTUAL				\$0	\$0
Other (includes Sub-Awards)					
Sub-Awards	Cost/Unit		QTY		
Rebate program for replacements of nonroad natural gas pump engines 25-100 horsepower	\$40,000		175	\$2,800,000	\$4,200,000
Rebate program for replacements of nonroad natural gas compressors 500-1350 horsepower	\$300,000		15	\$1,800,000	\$2,700,000
Building & Site Rental				\$9,455	
Utilities				\$6,271	
LAN/WAN				\$5,700	
Phone				\$1,000	
Printing/Photocopy				\$1,042	
TOTAL OTHER			190	\$4,623,468	\$6,900,000
TOTAL DIRECT				\$4,957,836	\$6,900,000
TOTAL INDIRECT (based on approval of FY17 OMB Circular A-87 Cognizant Agency Negotiation Agreement. Percentage taken from personnel and fringe benefits)			12.61%	\$42,164	
TOTAL FUNDING				\$5,000,000	\$6,900,000
TOTAL PROJECT COST				\$11,900,000	

g. Leveraging

Demonstration of leveraging additional funds, beyond the grant funds awarded, to support the proposed project activities: Through the application process, engine owners will be required to agree with the terms and conditions of the program, which will include a mandatory cost-share of 60% percent cost-share for engine owners. The online system with which engine owners will submit their proposed projects won't allow an application to be processed without agreeing to those terms. In other words, the evaluation, approval, and award of proposed projects hinges on the agreement by the private fleet owner to cost-share at the required rate. The cost-share commitment is then solidified through the contractual process upon award.

How these funds will be used to contribute to the performance and success of the proposed project: Cost-share requirements for participants allow for an increased number of projects to occur with the available funding, achieving higher emissions reductions.

Amount and type of leveraged funds: Based on the current estimated cost of the 190 new engines proposed for purchase, it is estimated that approximately 6.9 million will come from the participating engine owners' budgets.

How the leveraged funds will be obtained and the likelihood the leveraging will materialize during the grant performance: The cost-share funding will be acquired through the procurement process of the new engines. UDEQ will hinge the disbursement of grant funds on the participating engine owners' meeting their portion of the cost-share through the dealership. Invoices from the dealership to UDEQ must reflect the participant's portion of the cost-share before UDEQ will pay the remaining portion of the cost for the new engine. In addition to the detailed invoices, the following documentation must be submitted to UDEQ before grant funds are disbursed: multiple bids for the new engine(s) that show the lowest cost option was purchased, evidence that the replacement activity is not part of normal engine attrition, and evidence of appropriate scrappage of the old engine. As such, the cost-share funds will materialize throughout the project period and as outputs and outcomes are completed.

Strength of leveraging commitment and role the leveraged funds will play to support the proposed project activities: The measures that will be in place strengthen the leveraged funds in the guarantee that no grant funds will be disbursed for activities that haven't demonstrated funding support by the participant or met the outputs and outcomes of the grant. If a participant were to not meet the cost-share requirement, they would be disqualified from receiving funding assistance. UDEQ would then select another participant who could demonstrate meeting the cost-share requirement and subsequent outputs and outcomes of the grant. If no participants were found to meet these conditions, grant funds would not be drawn down from EPA.